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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/628,892

07/28/2003

Cheng-Geng Jan

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34283

7590

03/23/2005

QUINTERO LAW OFFICE
1617 BROADWAY, 3RD FLOOR
SANTA MONICA, CA 90404

EXAMINER

TRAN, CHUC

ART UNIT

PAPER NUMBER

2821

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

EJC

Office Action Summary	Application No. 10/628,892	Applicant(s) JAN ET AL.	
	Examiner Chuc D. Tran	Art Unit 2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2005.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5-11 and 25-28 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1,3,5-11 and 25-28 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 08 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Allowable Subject Matter

1. The indicated allowability of claims 9-11, 22 and 24 is withdrawn in view of the newly discovered reference(s) to Rankin et al (USP. 5,057,848). Rejections based on the newly cited reference(s) follow.

Response to Arguments

2. Applicant's arguments with respect to claims 1-8, 10, 12-21 and 23 have been considered but are moot in view of the new ground(s) of rejection.

Applicants argue that the reference of the Prior Art do not teach or suggest a complex antenna apparatus comprising a base including a around and a capacitance (inductance) cylinder loading monopole antenna comprising a monopole linear antenna and a conductive element covering the monopole linear antenna, wherein the conductive element is separated from the around of the base. The reference Rankin et al clearly teach a complex antenna apparatus comprising a base (72) including a ground (78) and a capacitance (inductance) cylinder loading monopole antenna comprising a monopole linear antenna (60) and a conductive element (94) covering the monopole linear antenna (60) (Fig. 2), wherein the conductive element (94) is separated from the ground (78) of the base (72) (Fig. 2).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1, 3, 5, 7-9, 11 and 25-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Rankin et al (USP. 5,057,848).

Regarding claim 1, Rankin et al disclose a complex antenna apparatus, comprising:

- a base (72) having a central through hole (66) and a ground (78) (Fig. 2);
- a circular polarization antenna (64) disposed on the base and having a hollow feeding portion (68) corresponding to the central through hole (Fig. 3); and
- a capacitance (inductance) cylinder loading monopole antenna (94) disposed in the central through hole (66) of the base (72) via the hollow feeding portion (68) of the circular polarization antenna (64) (Fig. 2) comprising a monopole linear antenna (60) and a conductive element (94) (Col. 3, line 3) covering the monopole linear antenna (60) (Fig. 2), wherein the conductive element is separated from the ground (78) of the base (72) (Fig. 2).
- Regarding claim 3, Rankin et al disclose that a dielectric (88) disposed between the conductive element (94) and monopole linear antenna (60) (Col. 2, line 68).

Regarding claim 5, Rankin et al disclose that the circular polarization antenna (64) is circular (Col. 2, Line 47).

Regarding claim 7, Rankin et al disclose that an RF module connected to the circular polarization antenna and capacitance (inductance) cylinder loading monopole antenna (Fig. 3).

Regarding claim 8, Rankin et al disclose that the circular polarization antenna (64) and capacitance cylinder loading monopole antenna (60) connected to the RF module (Fig. 3) via the through hole (68) and central through hole (66) of the base (72) (Fig. 12 & 13).

Regarding claim 9, Rankin et al disclose that a demodulator (104) connected to the RF module (Fig. 3).

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Regarding claim 11, Rankin et al disclose that the dielectric is Teflon (Col. 3, line 1)

Regarding claim 25, Rankin et al disclose a complex antenna apparatus, comprising:

- a base (72) having a central through hole (66) (Fig. 2);
- a circular polarization antenna (64) disposed on the base (72) and having a hollow feeding portion (68) corresponding to the central through hole;
- a linear antenna (60) disposed in the central through hole of the base via the hollow feeding portion of the circular polarization antenna (Fig. 2);
- an RF module connected to the circular polarization antenna (64) and linear antenna (60); and
- a demodulator (104) connected to the RF module (Fig. 2).

Regarding claim 26, Rankin et al disclose a complex antenna apparatus, comprising:

- a base (72) having a central through hole (66);
- a circular polarization antenna (64) disposed on the base (72) and having a hollow feeding portion (68) corresponding to the central through hole (Fig. 2); and
- a linear antenna disposed in the central through hole of the base via the hollow feeding portion of the circular polarization antenna (Fig. 2) and comprising a monopole linear antenna (60), a conductive element (94) and a Teflon dielectric (88) (Col.3, Line 1), wherein the conductive element (94) covers the monopole linear antenna (60), and the Teflon dielectric is disposed between the conductive element (94) and the monopole linear antenna (60) (Col.2, Line 65) (Fig. 2).

Regarding claim 27, Rankin et al disclose a complex antenna apparatus, comprising:

- a base having a central through hole; a circular polarization antenna disposed on the

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base and having a hollow feeding portion corresponding to the central through hole;

- a capacitance (inductance) cylinder loading monopole antenna (94) disposed in the central through hole of the base via the hollow feeding portion of the circular polarization antenna (Fig. 2);

- an RF module connected to the circular polarization antenna (64) and capacitance (inductance) cylinder loading monopole antenna (60) (Fig. 3); and

- a demodulator (104) connected to the RF module (Fig. 3).

Regarding claim 28, Rankin et al disclose a complex antenna apparatus, comprising:

- a base (72) having a central through hole (66) (Fig. 2);
- a circular polarization antenna (64) disposed on the base and having a hollow feeding portion (68) corresponding to the central through hole (Fig. 2); and
- a capacitance (inductance) cylinder loading monopole antenna disposed in the central through hole of the base via the hollow feeding portion of the circular polarization antenna (Fig. 2) and comprising a monopole linear antenna (60), a conductive element (94) and a Teflon dielectric (88) (Col. 3, Line 1), wherein the conductive element (94) covers the monopole linear antenna (60), and the Teflon dielectric (88) is disposed between the conductive element (94) and the monopole linear antenna (60) (Fig. 2).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rankin et al. in view of Sanford et al (USP. 6,313,801).

Regarding claim 6, Rankin et al disclose a complex antenna apparatus as set forth in the claims except the circular polarization antenna is rectangular. Sanford et al teach antenna structure comprising the circular polarization antenna (41) is rectangular (Sanford et al Fig. 1). Thus, it would have been obvious to one of ordinary skill in the art to modify Rankin et al by making the circular polarization antenna rectangular shape as taught by Sanford et al. The ordinary artisan would have been motivated to modify Rankin et al in the manner described above for sensing wideband electromagnetic energy in the different frequency band antenna (See Rankin et al Abstract).

Regarding claim 10, Rankin et al disclose a complex antenna apparatus as set forth in the claims except the base is ceramic. Thus, it would have been obvious to one of ordinary skill in the art to make the base material by ceramic or constant dielectric. The ordinary artisan would have been motivated to modify Rankin et al in the manner described above for preventing short circuit, temperature, humidity and other environmental parameters in the antenna system (See Rankin et al Col. 3, Line 11).

Citation of relevant Prior Art

Prior art Lin et al (USP. 6,229,488) disclose antenna for receiving signals from GPS and GSM.

Prior art Nichols et al (USP. 5,831,577) disclose GPS/radio antenna combination.

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Prior art Shimabara et al (USP. 6,839,033) disclose multi frequency antenna.

Prior art Noro (USP. 6,538,611) disclose antenna apparatus having a simplified structure.

Prior art Roscoe et al (USP. 6,181,286) disclose integrated satellite/terrestrial antenna.

Prior art Stites et al (USP. 5,610,620) disclose combination antenna.

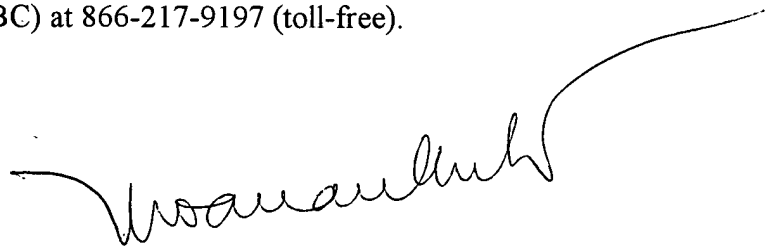
Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuc D. Tran whose telephone number is (571) 272-1829. The examiner can normally be reached on M-F Flex hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TC
March 16, 2005



**Hoanganh Le
Primary Examiner**